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# Magnetic properties of the ising dipole ferromagnet LiTbF4

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## Abstract

The field and temperature dependences of the magnetization of a LiTbF4 single crystal are measured at temperatures ranging from 2 to 300 K in magnetic fields (up to 5 T) directed parallel and perpendicular to the crystallographic axis c. It is revealed that the temperature dependence of the induced (van Vleck) transverse magnetization exhibits nonmonotonic behavior with a maximum in the vicinity of the liquid-nitrogen temperature. The results of magnetization measurements are used to determine the parameters of the crystal field and interionic magnetic interactions. © 2002 MAIK "Nauka/Interperiodica".

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